

PROJECT CHARGE: 2106
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LASER PERFORATION OF TIPPING PAPER

Work has continued on new product development using the original perforation system at Midlothian Complex. Some problems were experienced with the L & M Lark brand dilution being too high. This was traced to a change in the plug wrap porosity. As a large quantity of plug wrap is in storage, a new pressure drop specification was established to maintain correct dilution levels.

Calibration curves have been run on the Optical Porosity Monitor (OPM). A new diode has been ordered to improve the OPM's operation.

Bacterial growth has been found in the water cooling systems of the laser systems. This forced the use of higher water pressure to maintain the flow rates and these higher pressures caused several of the hoses in the cooling line to rupture. In conjunction with Dr. Semp, the bacterial growth was traced to city water makeup. He has recommended ways of cleaning the lines and a cooling system redesign to prevent this problem in the future. Both of these are currently under way.

The second training course on laser system operation for ET's at 20th Street is now being given. Assistance has been given on the Laser Analyst job definition and the subsequent search for suitable applicants.

ON-LINE OV MONITOR

Park 500 are evaluating possible techniques and vendors for an on-line RL monitor with feedback control of OV in the sheet. We have attended the presentations and analyzed the data presented to determine how well it could be applied in practice. The technique presented by Measurex looks promising but still seems to have no way of determining the level of the solubles.

HEAT TREATMENT OF TOBACCO MATERIALS

Experiments on heat treating tobacco at constant moisture content have been started using the pressurized containers. Experiments at 130 and 200°F indicate that the devices do indeed maintain the moisture content of tobacco.

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constant while building up only slight pressures. Preliminary results indicate that heat treatment can increase CV even if the OV is held essentially constant. Marlboro filler has been found to exhibit signs of charring under these conditions even though the treatment temperature was only 200°F. Work is in progress to confirm and expand these findings.

Work on the effects of redrying guardited oriental tobacco to 12% OV has been started. An experimental program has been devised in conjunction with A. Kallianos. Samples have been obtained from Universal Leaf in Petersburg.

Cassandra Owen has joined the group on a temporary basis and will be assisting on this area of the project.

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